## UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

PATENT NO. : 6,893,636 B2 DATED : May 17, 2005

DATED : May 17, 2005 INVENTOR(S) : Reff et al. Page 1 of 30

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Delete Columns 47-64 and Columns 65-66, lines 1-42 and insert the attached pages.

Signed and Sealed this

Ninth Day of May, 2006

JON W. DUDAS Director of the United States Patent and Trademark Office

## SEQUENCE LISTING

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<110> REFF, MITCHELL E.
      KLOETZER, WILLIAM S.
      NAKAMURA, TAKEHIKO
<120> GAMMA-1 AND GAMMA-3 ANTI-HUMAN CD23 MONOCLONAL ANTIBODIES AND USE
THEREOF AS THERAPEUTICS
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<140> 09/019,441
<141> 1998-02-05
<150> 08/803,085
<151> 1997-02-20
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Pro Lys Leu Met Ile Tyr Asp Val Ala Lys Arg Ala Ser Gly Val Ser
gat ege tte tet gge tee aag tet gge aac acg gee tee etg acc ate
Asp Arg Phe Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile
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tct ggg ctc cag gct gag gac gag gct gat tat tac tgt tgt tca tat
Ser Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Cys Ser Tyr
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cct tcg gag acc ctg tcc ctc acc tgc gct gtc tct ggt ggc tct gtc
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Asn Pro Ser Leu Lys Ser Arg Val Ile Ile Ser Gln Asp Thr Ser Lys
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ctg tet gea tet gta ggg gae aga gte ace ate act tge agg gea agt
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gct cct aag ctc ctg atc tat gtt gca tcc agt ttg caa agt ggg gtc
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Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
gtc agc agc ctg cag cct gaa gat ttt gcg act tat tac tgt cta cag
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Val Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln
gtt tat agt acc cct cgg acg ttc ggc caa ggg acc aag gtg gaa atc
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Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
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Wor	3> D	onke	y (m	caqu	E Ar( 10);	tific leac	cial der s	Seque	once Jence	e: Ma is a	nture an ai	e per	otide Lcia:	e is L sec	derive quence	ed from 0 to	old
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<110> REFF, MITCHELL E.

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KLOETZER, WILLIAM S.
      NAKAMURA, TAKEHIKO
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<pre>&lt;223&gt; Descrip World Monkey facilitate cl &lt;400&gt; 2 Met Ala Trp Ti Ser Trp Ala G</pre>	(macaque); oning  hr Leu Leu -15  ln Ser Ala	Leu Val	Thr Leu -10	Leu Thr	Gln Gly Val Ser	Thr -5 Gly	Gly Ser	
<pre>&lt;223&gt; Descrip World Monkey facilitate cl &lt;400&gt; 2  Met Ala Trp Tl  Ser Trp Ala G</pre>	(macaque); oning  hr Leu Leu -15  ln Ser Ala 1 er Val Thr	Leu Val. Pro Thr 5 Ile Ser 20	Thr Leu -10 Gln Pro Cys Thr	Leu Thr Pro Ser Gly Thr 25	Gln Gly Val Ser 10 Ser Asp	Thr -5 Gly Asp	Gly Ser Val	
<pre>&lt;223&gt; Descrip World Monkey facilitate cl &lt;400&gt; 2  Met Ala Trp Tr  Ser Trp Ala G</pre>	(macaque); oning  hr Leu Leu -15  ln Ser Ala 1 er Val Thr sn Tyr Val 35	Leu Val. Pro Thr 5 Ile Ser 20 Ser Trp	Thr Leu -10 Gln Pro Cys Thr	Leu Thr Pro Ser Gly Thr 25 His His	Gln Gly Val Ser 10 Ser Asp	Thr -5 Gly Asp	Gly Ser Val Ala 45	
<pre>&lt;223&gt; Descrip World Monkey facilitate cl &lt;400&gt; 2  Met Ala Trp Tl  Ser Trp Ala G</pre>	(macaque); oning  hr Leu Leu -15  ln Ser Ala 1 er Val Thr sn Tyr Val 35 et Ile Tyr 50	Leu Val. Pro Thr 5 Ile Ser 20 Ser Trp Asp Val	Thr Leu -10 Gln Pro Cys Thr Tyr Gln Ala Lys 55	Leu Thr Pro Ser Gly Thr 25 His His 40 Arg Ala	Gln Gly Val Ser 10 Ser Asp Pro Gly Ser Gly	Thr -5 Gly Asp Lys	Gly Ser Val Ala 45	
<pre>&lt;223&gt; Descrip World Monkey facilitate cl &lt;400&gt; 2  Met Ala Trp Tl  Ser Trp Ala G</pre>	(macaque); oning  hr Leu Leu -15  ln Ser Ala  er Val Thr  sn Tyr Val 35  et Ile Tyr 50  er Gly Ser	Leu Val. Pro Thr 5 Ile Ser 20 Ser Trp Asp Val	Thr Leu -10 Gln Pro Cys Thr Tyr Gln Ala Lys 55 Gly Asn 70	Leu Thr Pro Ser Gly Thr 25 His His 40 Arg Ala Thr Ala	Gln Gly Val Ser 10 Ser Asp Pro Gly Ser Gly Ser Leu 75	Thr -5 Gly Asp Lys Val 60	Gly Ser Val Ala 45 Ser	

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                                                                   48
Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
                -15
gto otg too cag otg cag otg gag tog ggo coa gga gtg gtg aag
                                                                   96
Val Leu Ser Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Val Val Lys
         -1
             1
cct teg gag acc etg tee ete acc tgc get gte tet ggt gge tet gte
Pro Ser Glu Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Val
     15
                         20
age agt agt aac tgg tgg acc tgg atc cgc cag ccc cca ggg aag gga
Ser Ser Ser Asn Trp Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly
 30
ctg gag tgg att gga cgt atc tct ggt agt ggg gcc acc aac tac
                                                                   240
Leu Glu Trp Ile Gly Arg Ile Ser Gly Ser Gly Gly Ala Thr Asn Tyr
aac cog too etc aag agt ega gte atc att tea caa gae aeg tee aag
                                                                   288
Asn Pro Ser Leu Lys Ser Arg Val Ile Ile Ser Gln Asp Thr Ser Lys
aac cag tto tcc ctg aac ctg aac tot gtg acc gcc gcg gac acg gcc
                                                                   336
Asn Gln Phe Ser Leu Asn Leu Asn Ser Val Thr Ala Ala Asp Thr Ala
         80
gtg tat tac tgt gcc aga gat tgg gcc caa ata gct gga aca acg cta
                                                                   384
Val Tyr Tyr Cys Ala Arg Asp Trp Ala Gln Ile Ala Gly Thr Thr Leu
     95
                        100
                                            105
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ggc ttc tgg ggc cag gga gtc ctg gtc acc gtc tcc tca
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Gly Phe Trp Gly Gln Gly Val Leu Val Thr Val Ser Ser
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                                    -10
Val Leu Ser Gln Leu Gln Glu Ser Gly Pro Gly Val Val Lys
Pro Ser Glu Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Gly Ser Val
Ser Ser Ser Asn Trp Trp Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly
                                         40
Leu Glu Trp Ile Gly Arg Ile Ser Gly Ser Gly Gly Ala Thr Asn Tyr
Asn Pro Ser Leu Lys Ser Arg Val Ile Ile Ser Gln Asp Thr Ser Lys
Asn Gln Phe Ser Leu Asn Leu Asn Ser Val Thr Ala Ala Asp Thr Ala
Val Tyr Tyr Cys Ala Arg Asp Trp Ala Gln Ile Ala Gly Thr Thr Leu
Gly Phe Trp Gly Gln Gly Val Leu Val Thr Val Ser Ser
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                                                                    48
 Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Trp
         -20
                             -15
 ctc cca ggt gcc aga tgt gac atc cag atg acc cag tct cca tct tcc
                                                                    96
 Leu Pro Gly Ala Arg Cys Asp Ile Gln Met Thr Gln Ser Pro Ser Ser
                      -1
ctg tct gca tct gta ggg gac aga gtc acc atc act tgc agg gca agt
                                                                    144
Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
cag gac att agg tat tat tta aat tgg tat cag cag aaa cca gga aaa
                                                                    192
Gln Asp Ile Arg Tyr Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys
get eet aag ete etg ate tat gtt gea tee agt ttg caa agt ggg gte
                                                                    240
Ala Pro Lys Leu Leu Ile Tyr Val Ala Ser Ser Leu Gln Ser Gly Val
         45
cca tca agg ttc agc ggc agt gga tct ggg aca gag ttc act ctc acc
                                                                    288
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
gtc agc agc ctg cag cct gaa gat ttt gcg act tat tac tgt cta cag
                                                                    336
Val Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln
 75
                     80
gtt tat agt acc cet egg acg tte gge caa ggg acc aag gtg gaa atc
                                                                   384
Val Tyr Ser Thr Pro Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
                                     100
aaa
                                                                   387
Lys
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                                                 -10
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-1
                                                              10
     -5
Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ala Ser
Gln Asp Ile Arg Tyr Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys
Ala Pro Lys Leu Leu Ile Tyr Val Ala Ser Ser Leu Gln Ser Gly Val
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
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Met Glu Phe Gly Leu Ser Trp Val Phe Leu Val Pro Leu Leu Lys Gly
gtc cag tgt gag gtg cag ctg gtg gag tct ggg ggc ggc ttg gca aag
Val Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ala Lys
cct ggg ggg tcc ctg aga etc tcc tgc gca gcc tcc ggg ttc agg ttc
Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Arg Phe
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acc Thr 30	Phe	aat Asn	aac Asn	tac Tyr	tac Tyr 35	atg Met	gac Asp	tgg Trp	gtc Val	cgc Arg 40	cag Gln	gct Ala	cca Pro	Gly ggg	cag Gln 45	192
999 G1	ctg Leu	gag Glu	tgg Trp	gtc Val 50	Ser	cgt Arg	att Ile	agt Ser	agt Ser 55	Ser	ggt Gly	gat Asp	ccc Pro	aca Thr 60	tgg Trp	240
tac Tyr	gca Ala	gac Asp	tco Ser 65	Val	aag Lys	ggc	aga Arg	ttc Phe 70	acc Thr	atc Ile	tcc Ser	aga Arg	gag Glu 75	aac Asn	gcc Ala	288
aac Asn	aac Asn	aca Thr 80	Leu	ttt Phe	ctt Leu	caa Gln	atg Met 85	Asn	agc Ser	ctg Leu	aga Arg	gct Ala 90	gag Glu	gac Asp	acg Thr	336
gct Ala	ytc Val 95	Tyr	tac Tyr	tgt Cys	gcg Ala	agc Ser 100	ttg Leu	act Thr	aca Thr	ggg Gly	tct Ser 105	gac Asp	tcc Ser	tgg Trp	ggc Gly	384
Gln 110	Gly	gtc Val	ctg Leu	gtc Val	acc Thr 115	gtc Val	tcc Ser	tca Ser								411
<21 <21	0> 8 1> 1 2> P 3> A	37 RT	ical	Sequ	uenc	8										
fac	3> D	onke	ipticy (macclon)	acaqı	f Art	tific leac	cial der s	Seque	ience ence	e: Ma is a	nture in ai	e per	otide icial	e is L sec	derive quence	ed from Old to
<22 Wor fac	3> Dalla Marketta de la Marketta de	onke ate	y (ma clon:	acaqı ing	16);	tific lead	ier s	seque	ence	is a	an ai	r <b>tif</b> i	icia]	. sec	ineuce	ed from Old to
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<222 Worfac <40 Met Val	3> Dold Milit: 0> 8 Glu Gln Gly 15	Phe Cys -1 Gly	Gly Glu 1 Ser	Leu -15 Val	Ser Gln Arg	Trp Leu	Val Val Ser	Phe Glu Cys	Leu -10 Ser	Val Gly Ala	Pro Gly Ser 25	Leu Gly 10 Gly	Leu Leu Phe	Lys -5 Ala	Qly Lys Phe	ed from Old to
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<22 Wor fac <40 Met Val Pro Thr 30 Gly	3> Did Mild Mild Mild Mild Mild Mild Mild Mi	Phe Cys -1 Gly Asn	Gly Glu l Ser Asn	Leu -15 Val Leu Tyr	Ser Gln Arg Tyr 35	Trp Leu Leu 20	Val Val Ser Asp	Phe Glu Cys Trp Ser	Leu -10 Ser Ala Val	Val Gly Ala Arg 40 Ser	Pro Gly Ser 25 Gln	Leu Gly 10 Gly Ala Asp	Leu Leu Phe Pro	Lys -5 Ala Arg Gly	Gly Lys Phe Gln 45	ed from Old
<222 Worr fac <40 Met Val Pro Thr 30 Gly Tyr	3> Did Model of the Model of th	Phe Cys -1 Gly Asn Glu Asp	Gly Glu l Ser Asn Trp Ser 65	Leu -15 Val Leu Tyr Val 50	Ser Gln Arg Tyr 35 Ser	Trp Leu Leu 20 Met	Val Val Ser Asp Ile	Phe Glu Cys Trp Ser Phe 70	Leu -10 Ser Ala Val Ser 55	Val Gly Ala Arg 40 Ser	Pro Gly Ser 25 Gln Gly Ser	Leu Gly 10 Gly Ala Asp	Leu Leu Phe Pro Pro Glu 75	Lys -5 Ala Arg Gly Thr 60	Gly Lys Phe Gln 45 Trp	ed from Old

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